

## Calamovilfa longifolia - Carex inops ssp. heliophila Herbaceous Vegetation

COMMON NAME	Prairie Sandreed - Long-stolon Sedge Herbaceous Vegetation
SYNONYM	Prairie Sandreed - Sedge Prairie
PHYSIOGNOMIC CLASS	Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (V.A.5.N)
FORMATION	Tall sod temperate grassland (V.A.5.N.a)
ALLIANCE	CALAMOVILFA LONGIFOLIA HERBACEOUS ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM

RANGE

### **Theodore Roosevelt National Park**

These grasslands occupy the sandy ridges of upland draws and hillslopes throughout Theodore Roosevelt NP. The majority of the stands are less than 0.5 ha in size.

### **Globally**

This community is found in 3 ecoregional sections in Wyoming, Montana, North Dakota, South Dakota, and Saskatchewan.

ENVIRONMENTAL DESCRIPTION

### **Theodore Roosevelt National Park**

*Calamovilfa longifolia* grasslands occur most commonly as small, nearly monotypic patches on the coarse-textured soils found on the slopes and shoulders of draws and steep slopes. The soils are, because of their texture and location on the landscape, well drained.

### **Globally**

Stands are found on gently rolling uplands with little to moderate slopes (typically between 0 and 20%, but occasionally as high as 39%, Hirsch 1985, Hansen and Hoffman 1988). The soils are sand, sandy loam, or loamy sand and there is rarely substantial soil horizon development (Hanson and Whitman 1938). The parent material is sandstone (USFS 1992). Moisture levels may be high deep in the profile.

MOST ABUNDANT SPECIES

### **Theodore Roosevelt National Park**

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Calamovilfa longifolia</i> , <i>Carex filifolia</i>

### **Globally**

<u>Stratum</u>	<u>Species</u>
Graminoid	<i>Calamovilfa longifolia</i> , <i>Carex filifolia</i> , <i>Carex inops ssp. heliophila</i>

CHARACTERISTIC SPECIES

### **Theodore Roosevelt National Park**

*Calamovilfa longifolia*, *Carex filifolia*

### **Globally**

*Calamovilfa longifolia*, *Carex filifolia*, *Carex inops ssp. heliophila*

VEGETATION DESCRIPTION

### **Theodore Roosevelt National Park**

Foliar cover usually ranges between 15 -30% in most stands. *Calamovilfa longifolia* is the dominant species while *Carex filifolia* is the more common associate. *Stipa spartea* occurs less frequently than *C. filifolia* but typically has higher cover values. Species composition of this community can be fairly rich.

### **Globally**

The vegetation structure is somewhat open, with cover averaging 65 percent in parts of its range (USFS 1992). The vegetation is dominated by graminoids, with two strata, one of mid- to tall-grasses, the other of dense short sedges. In the taller grass layer, the most abundant species is *Calamovilfa longifolia*. Other species found in this layer include *Koeleria macrantha*, *Schizachyrium scoparium*, and *Stipa comata*. *Pascopyrum smithii* may be present on some stands with finer soil textures. The short graminoid layer

**USGS-NPS Vegetation Mapping Program**  
**Theodore Roosevelt National Park**

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is composed chiefly of *Carex filifolia* and *Carex inops ssp. heliophila*, which may have high cover values. Other upland Carices, such as *Carex duriuscula* (= *Carex eleocharis*), as well as *Bouteloua gracilis* and *Muhlenbergia pungens*, may also be present. Forb species diversity is moderate, but they do not contribute greatly to the cover (Hanson and Whitman 1938, USFS 1992). The forbs that are typical of this community include *Artemisia dracunculus*, *Artemisia frigida*, *Artemisia ludoviciana*, *Chenopodium album*, *Chenopodium leptophyllum*, *Lathyrus spp.*, *Liatris punctata*, *Lygodesmia juncea*, *Phlox hoodii*, and *Psoraleidium lanceolatum*. Shrubs are uncommon. When shrubs are present they are short shrubs such as *Yucca glauca*, *Rosa spp.*, and *Artemisia frigida* (a shrub by some authors; also listed as a forb above).

CONSERVATION RANK G3. No occurrences have been documented, but the community is reported in 3 ecoregional subsections in Wyoming, Montana, North Dakota, South Dakota, and Saskatchewan. It is a very uncommon community in Badlands National Park, South Dakota.

DATABASE CODE CEGL001471

**SIMILAR ASSOCIATIONS**

Calamovilfa longifolia - Stipa comata Herbaceous Vegetation

**COMMENTS**

**REFERENCES**

Hansen, P.L. 1985. An ecological study of the vegetation of the Grand River/Cedar River, Sioux, and Ashland Districts of the Custer National Forest. Unpublished dissertation, South Dakota State University. 257 pp.